

Application No.: 10/633,598

Docket No.: 30012821-2US (1509-438)

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Claim 1 (currently amended)** A flexible electrical connector adapted to ~~connect~~ be connected to a ~~complimentary~~ complementary electrical connector receiver, said flexible electrical connector comprising first and second pluralities of spaced apart, elongate, signal carriers; an elongate current return conductor; and an insulator; said first plurality of signal carriers being spaced apart from said current return conductor by said insulator and extending substantially parallel to said current return conductor, and said second plurality of signal carriers being spaced from an opposite side of said current return conductor to said first plurality of signal carriers by a further insulator, respective exposed end regions of said first and second pluralities of signal carriers and said current return conductor comprising respective, integrally formed contact regions thereof, said contact regions of said first and second pluralities of signal carriers being adapted to couple said first and second pluralities of signal carriers and said current return conductor arranged to be coupled electrically to corresponding contacts of said ~~complimentary~~ complementary electrical connector receiver and said region of said current return conductor being arranged to be coupled electrically to a corresponding contact of said

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complementary electrical connector receiver over a substantial fraction of the width of said current return conductor.

**Claim 2 (original):** A connector according to claim 1 wherein said first and second pluralities of signal carriers are thin film tracks deposited upon said insulators.

**Claim 3 (original):** A connector according to claim 1 wherein one of (i) said plurality of signal carriers and (ii) said current return conductor, extends longitudinally of the other of (i) and (ii) beyond a terminal end of said other of (i) and (ii) so that end portions of (i) and (ii) are staggered in position longitudinally along said connector.

**Claim 4 (original):** A connector according to claim 1 wherein said second plurality of signal carriers extend longitudinally of said connector beyond a terminal end of said first plurality of signal carriers.

**Claim 5 (currently amended):** A connector according to claim 1 wherein said second plurality of signal carriers extend longitudinally of said connector beyond a terminal end [[and]] of said current return conductor.

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**Claim 6 (original):** A connector according to claim 4 wherein said second plurality of signal carriers extend longitudinally of said connector beyond a terminal end of said current return conductor.

**Claim 7 (currently amended):** A connector according to claim 1 wherein said current return conductor is at least as wide as [[a]] the total width spanned by a wider one of the following: said first plurality of signal carriers, said second plurality of signal carriers.

**Claim 8 (original):** A connector according to claim 1 wherein a terminal end of said second plurality of signal carriers is located at substantially the same longitudinal location as a terminal end of one of the following: said first plurality of signal carriers, said current return conductor.

**Claim 9 (original):** A connector according to claim 1 wherein said connector has a positive location formation disposed at one of the following: an edge of the connector, a side portion of the connector.

**Claim 10 (original):** A connector according to claim 1 wherein the current return conductor is one of the following: a sheet of conducting material, a mesh of a conducting material.

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**Claim 11 (currently amended):** A connection arrangement comprising a flexible connector comprising a flexible electrical connector adapted to be connected ~~connect~~ to a ~~complimentary~~ complementary electrical connector receiver, said flexible electrical connector comprising first and second pluralities of spaced apart, elongate, signal carriers; an elongate current return conductor; and an insulator; said first plurality of signal carriers (a) being spaced apart from said current return conductor by said insulator and (b) extending substantially parallel to said current return conductor, and said second plurality of signal carriers being spaced from an opposite side of said current return conductor to said first plurality of signal carriers by a further insulator, respective exposed end regions of said first and second pluralities of signal carriers and said current return conductor comprising respective, integrally formed contact regions thereof, said contact regions being adapted to couple said signal carriers and said current return conductor electrically to corresponding contacts of said ~~complimentary~~ complementary electrical connector receiver, ~~and a complimentary~~ the complementary electrical connector receiver comprising a housing, first and second pluralities of signal contacts, and a current return conductor contact~~[[:]]~~; each of said first and second pluralities of signal contacts being arranged to engage said respective contact regions of said first and second pluralities of signal carriers, each of said first plurality of signal contacts being configured ~~so as to allow~~ for (a) enabling said connector to pass thereover ~~so as to enable~~ and (b) said current return conductor to contact said current

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return conductor contact over a substantial fraction of the width of said return conductor.

**Claim 12 (currently amended):** An arrangement according to claim 11 wherein said current return conductor contact is arranged, in use, to contact said current return conductor contact region over a substantial fraction of the width of said current return conductor's width, ~~in use, when~~ conductor, while said first plurality of signal carrier contact regions are in contact with said plurality of signal contacts.

**Claim 13 (currently amended):** An arrangement according to claim 11 ~~wherein there is~~ further including a single elongate contact for contacting said current return conductor to ground.

**Claim 14 (currently amended):** An arrangement according to claim 11 wherein said first plurality of signal contacts and said current return conductor contact are arranged, in use, to be biased against a surface of said connector, ~~in use.~~

**Claim 15 (currently amended):** An arrangement according to claim 11 wherein said first plurality of signal contacts ~~[[are]]~~ is arranged to be biased, in use, against ~~said connector at a first surface thereof~~ said conductor and said second plurality of signal contacts ~~[[are]]~~ is arranged to be biased, in use.

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against said connector at a second surface thereof so as to retain positively, ~~in use,~~ said connector.

**Claim 16 (currently amended):** ~~An arrangement according to claim 11 wherein~~ A connection arrangement comprising a flexible connector comprising a flexible electrical connector adapted to be connected to a complementary electrical connector receiver, said flexible electrical connector comprising first and second pluralities of spaced apart, elongate, signal carriers; an elongate current return conductor; and an insulator; said first plurality of signal carriers (a) being spaced apart from said current return conductor by said insulator and (b) extending substantially parallel to said current return conductor, and said second plurality of signal carriers being spaced from an opposite side of said current return conductor to said first plurality of signal carriers by a further insulator, respective exposed end regions of said first and second pluralities of signal carriers and said current return conductor comprising respective, integrally formed contact regions thereof, said contact regions being adapted to couple said signal carriers and said current return conductor electrically to corresponding contacts of said complementary electrical connector receiver, the complementary electrical connector receiver comprising a housing, first and second pluralities of signal contacts, and a current return conductor contact; each of said first and second pluralities of signal contacts being arranged to engage said respective contact regions of said first and second pluralities of signal carriers, each of said first plurality of signal contacts being configured for

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(a) enabling said connector to pass thereover and (b) said current return conductor to contact said current return conductor contact, said housing comprises comprising a fixing arranged in use, to co-operate with a positive location formation [[upon]] on said connector, ~~in use~~.

**Claim 17 (original):** An arrangement according to claim 11 wherein said current return conductor contact is roughened, rippled, bent or dimpled, or has projections thereupon.

**Claim 18 (currently amended):** A connector receiver for receiving a flexible connector, comprising a housing, a current return conductor contact, and first and second signal contacts, said current return conductor contact being arranged to contact a current return conductor of said flexible connector over a substantial fraction of the width of said current return ~~conductor's width, and conductor,~~ said first signal contact being arranged to contact a signal carrier of said flexible connector, and said second signal contact being arranged to contact at least one further signal carrier, said further signal carrier being disposed [[upon]] on an opposite face of said flexible connector from said signal carrier.

**Claim 19 (original):** A receiver according to claim 18 wherein said current return conductor contact and said signal contact are spaced apart

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longitudinally with respect to the direction of insertion of the flexible connector into said receiver.

**Claim 20 (original):** A receiver according to claim 18 wherein said current return conductor contact is one of the following: roughened, rippled, bent, dimpled, has projections thereupon.

**Claim 21 (currently amended):** A flexible electrical connector adapted to ~~connect~~ be connected to a ~~complimentary~~ complementary electrical connector receiver, said flexible electrical connector comprising first and second pluralities of spaced apart, elongate, thin film metal tracks, each of which is arranged to carry a signal; an elongate metal ground plane; and an insulating layer; said first plurality of metal tracks being spaced apart from said ground plane by said insulating layer and extending substantially parallel to said ground plane, and said second plurality of metal tracks being spaced from an opposite side of said ground plane to said first plurality of metal tracks by an, or the, insulating layer, respective exposed end regions of said first and second pluralities of metal tracks and said ground plane comprising respective, integrally formed contact regions thereof, said contact regions ~~being adapted to couple said first and second pluralities of metal tracks and said ground plane of said first and second pluralities of metal tracks being arranged to be coupled electrically to corresponding contacts of said complimentary complementary electrical connector receiver and said contact region of said ground plane conductor being~~



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arranged to be coupled electrically to a corresponding contact of said complementary electrical connector receiver over a substantial fraction of the width of said ground plane.

**Claim 22 (currently amended):** A connection arrangement comprising a flexible connector comprising a flexible electrical connector adapted to ~~connect~~ be connected to a ~~complimentary~~ complementary electrical connector receiver, said flexible electrical connector comprising first and second pluralities of spaced apart, elongate, thin film metal tracks, each of which is arranged to carry a signal; an elongate metal ground plane; and an insulating layer; said first plurality of metal tracks being spaced apart from said ground plane by said insulating layer and extending substantially parallel to said ground plane, and said second plurality of metal tracks being spaced from an opposite side of said ground plane to said first plurality of metal tracks by an, or the, insulating layer, respective exposed end regions of said first and second pluralities of metal tracks and said ground plane comprising respective, integrally formed contact regions thereof, said contact regions being adapted to couple said first and second pluralities of metal tracks and said ground plane electrically to corresponding contacts of said ~~complimentary~~ complementary electrical connector receiver and a ~~complimentary~~ complementary electrical connector receiver comprising a housing, first and second pluralities of signal contacts, and a ground plane contact[[:]]; each of said first and second pluralities of signal contacts being arranged to engage said respective contact regions of said first

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and second pluralities of metal tracks, each of said first plurality of signal contacts being configured ~~so as to allow~~ for enabling (a) said connector to pass thereover ~~so as to~~ and (b) enable said ground plane to contact said ground plane contact over a substantial fraction of the width of said ground plane.

**Claim 23 (currently amended):** A connector receiver for receiving a flexible connector, comprising a housing, a ground plane contact, and first and second signal contacts, said ground plane contact being arranged to contact a metal ground plane of said flexible connector over a substantial fraction of the width of said ground plane's width plane, and said first signal contact being arranged to contact a first metal track, arranged to carry a signal, of said flexible connector, and said second signal contact being arranged to contact a second metal track, arranged to carry a signal, of said flexible connector, said second metal track being disposed ~~[[upon]]~~ on an opposite face of said flexible connector from said signal carrier.

**Claim 24 (new):** The connector of claim 1, wherein the substantial width exceeds 50%.

**Claim 25 (new):** The connection arrangement of claim 11, wherein the substantial width exceeds 50%.

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**Claim 26 (new):** The connector receiver of claim 18, wherein the substantial width exceeds 50%.

**Claim 27 (new):** The flexible electrical connector of claim 21, wherein the substantial width exceeds 50%.

**Claim 28 (currently amended):** The connection arrangement of claim 22, wherein the substantial width exceeds 50%.

**Claim 29 (currently amended):** The connector receiver of claim 23, wherein the substantial width exceeds 50%.